25ᵗʰ Anniversary Conference

South Central Arc User Group

April 13 – 17, 2015

Addison, Texas

esri

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PRESIDENTIAL ADDRESS

I would like to personally welcome each of you to the 25th Anniversary South Central Arc User Group (SCAUG) Conference in Addison, Texas. The 25th Anniversary is well known for being celebrated with silver. While we aren't going to give everyone silver we are polishing this conference up a bit. Hopefully you will notice a few more luxuries and amenities than normal, see a few more familiar faces than you generally see, and take away valuable content you can benefit from.

SCAUG has a rich and diverse history that spans over a quarter of a century. During this time we have witnessed the mainstream integration of GPS, the internet, wireless, and the downsizing of devices as processing speed steadily increases. All of these technological advances have changed the face of GIS as we knew or rather know it now. The creation of SCAUG truly was at the perfect time to experience the strength you can only acquire through being able to say "Been There, Done That".

The well-known questions of "Who, What, When, Where, & Why" are questions each of us face every day. Whether it is at work or at home everyone has spatial needs and there is no other tool aside from GIS that can accurately answer those fundamental questions so well. The increasing diversity of professions that rely on GIS to incorporate geospatial clarity into their business practices is astounding. Once you see the power of geospatial clarity you never can go back. GIS is not limited to just the GIS professional's workstation anymore. It is a fundamental decision making tool that everyone in an organization uses. Society as a whole is more spatially aware than ever before.

SCAUG's long standing reputation for being a leading GIS professional organization is deeply rooted in the increasing **Strength & Diversity** that lies within our ranks. Each of our Regional SCAUG Board Members encourages you to take this opportunity to build your own professional **Strength & Diversity** in the next few days by stepping out of your comfort zone. Strength only is achieved through work and experience. Diversity only comes from new interactions and opportunities.

We sincerely hope you will help us make SCAUG Stronger and more Diverse through the next 25 years.

Sincerely,
Charles E. Brady III, SCAUG President

SCAUG OFFICERS

President: Charles Brady III, GISP
City of Ardmore, Oklahoma

Vice President: Shellie Willoughby, GISP
Oklahoma Office of Geographic Information,
Oklahoma City, Oklahoma

Treasurer: James Allen
Carter County, Oklahoma

Secretary: Anne Mackey, GISP
Tarrant County Transportation, Fort Worth, Texas

Conference Coordinator: Betsi Chatham
City of Fort Worth, Texas

Conference Coordinator Elect: Lydia Sauceda, GISP
CPS Energy, San Antonio, Texas

North Texas Representative: Samantha Gorham
NAVFAC SE GRC|GISi, Fort Worth, Texas

South Texas Representative: : Shane Diaz
MSD GIS Services, Apple Springs, Texas

Louisiana Representative: Leslie H. Morgan, Ph.D.
GISNuts, San Antonio, Texas

Mississippi Representative: Lauralee Gann
Everything is Somewhere, LLC., Sardis, Mississippi

Oklahoma Representative: Will Gustafson, GISP
Meshek & Associates, PLC, Tulsa, Oklahoma

Esri Representative: Karen Lizcano
Esri - San Antonio, Texas

Mascot: TUG
South Central United States

TRAINING CLASSES & WORKSHOPS

MONDAY, APRIL 13		
CLASS	ROOM	TIME
Introduction to ArcGIS Pro for GIS Professionals	Dogwood At Hotel	8am to 5pm
Introduction to Geoprocessing Scripts Using Python	H105 At Brookhaven College	8am to 5pm
ModelBuilder Basics	H113 At Brookhaven College	8am to 5pm

TUESDAY, APRIL 14		
CLASS	ROOM	TIME
Using ArcGIS Pro for GIS Workflows	Dogwood At Hotel	8am to 5pm
Introduction to Geoprocessing Scripts Using Python	H105 At Brookhaven College	8am to 5pm
Building Web ArcGIS Server Applications with JavaScript	H113 At Brookhaven College	8am to 5pm
ArcGIS Tips & Tricks	H112 At Brookhaven College	8am to 12pm
Spatial Statistics in ArcMap	H112 At Brookhaven College	1pm to 5pm

FRIDAY, APRIL 17		
CLASS	ROOM	TIME
From Zero to Hero with your ArcGIS Online Subscription	Dogwood At Hotel	8am to 12pm
Planning & Managing a GIS	Red Oak At Hotel	8am to 12pm
TxEgrt	Live Oak At Hotel	8am to 12pm

TRAINING CLASS DIRECTIONS
to BROOKHAVEN COLLEGE

Brookhaven College Geotechnology Institute
Building H
3939 Valley View Lane
Farmers Branch, TX 75244

From the Crowne Plaza Hotel take a right on Midway Road, pass Spring Valley, and then take a right on Alpha Road. Alpha Road steers south, and then steers back west, and then turns into Valley View Lane. Entrances begin on south side of campus, enter and park in P4.

Shuttle Service is available from the Crowne Plaza Hotel! Morning service will leave promptly at 7:30am, and evening service will leave Brookhaven promptly at 5:15pm.
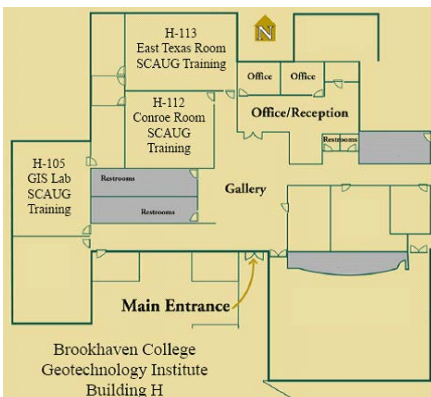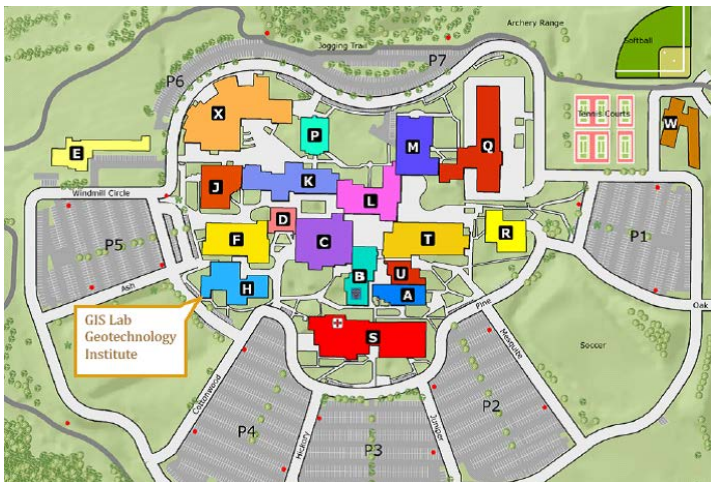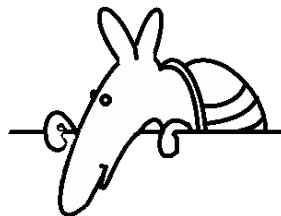

Classes are located in Building H

Parking is FREE

A MESSAGE FROM "TUG" THE ARCADILLO

Spring has finally arrived. After a long, seemingly never ending winter I am excited to see the warm sunshine, flowers blooming and blue skies. Spring is always a welcomed site for many reasons but for me it means that the SCAUG Regional conference is in sight. The conference brings together friends and colleagues, opportunities to learn and share, and a chance to remember why GIS is the greatest tool on earth.

It all started with a sketch: an idea sketched on a napkin some two & a half decades ago. An armadillo, a little regional critter that with his mere presence, shouts geographically where he and SCAUG reside. Sure we range a little more than where the map says occasionally but our centroid has always been in Texas, Oklahoma, Louisiana, & Mississippi. After 25 years we all have changed a little but our roots remain the same.

This year we remember our history and look toward our future. We have record breaking attendance that includes many of our past officers who have helped guide us to where we are today. Their leadership and vision have built our strong foundation. We will forever be grateful for their countless hours, tireless efforts, and strong dedication to our organization and our profession. Without each of these past officers we would not still be here 25 years later. In addition to the many attendees returning we have a slew of new folks joining us for the first time. For all of you, Welcome and Thank You for choosing to be a part our organization. Each attendee, from the first time attendee to our founders, is instrumental in guiding and growing SCAUG. We need each of us working together to be successful. Our future looks strong! Our organization is growing like never before and I have exciting new plans for the coming years. I will be traveling throughout our region so keep your eyes open for me. You never know where I will pop my head out.

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PLENARY SPEAKER

Jack Dangermond, Founder and President
Environmental Systems Research Institute (Esri)

A landscape architect by training, Jack Dangermond founded Environmental Systems Research Institute (Esri) in 1969 with a vision that computer mapping and analysis could help us design a better future. Under Dangermond's leadership, that vision has continued to guide Esri in creating cutting-edge GIS and GeoDesign technologies used in every industry to make a difference worldwide.

Dangermond fostered the growth of Esri from a small research group to an organization recognized as the world leader in GIS software development. Esri employs 2,700 people in the U.S.; many who shared his passion for GIS in the early days are still with the company and remain dedicated to helping our users be successful.

Wednesday, April 15th
8:00am to 9:00am
Trinity Ballroom

CONTRIBUTOR RECOGNITIONS

Brookhaven College Geotechnology Institute
Training Facilities

Lower Rio Grande Valley Development Council 9-1-1 Department
SCAUG Banners

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AWARD WINNERS

Regional Collaborative Scholarship
Matthew Haffner
Oklahoma State University

Regional Collaborative Scholarship
Janie Goddard
Northeastern State University

Memorial Scholarship
Emily Vickers
Tulsa Community College

Founders Award
Katy Rich
Williams

Thumbs Up Award
Scott Trapolino
DeSoto County, MS

SAVE THE DATE

Esri User Conference
San Diego, Ca
July 20 – 24, 2015

SCAUG Mixer @ Esri User Conference
San Diego, Ca
July 21, 2015 from 5:30pm to 7:00pm

OKSCAUG Conference
September 22, 2015
Oklahoma City, OK

TNRIS GIS Forum
October 26 – 29, 2015
Austin, TX

26th SCAUG Conference
April 18 – 22, 2016
Corpus Christi, TX

Asset Management
Using Street-View Images

HD-Cycloramas are seamless, 360° high resolution street-level panoramas collected every 15 feet. They have a unique image identification, date and time stamp with precise location & orientation built in. As a result of this geometric precision, it is possible to zoom in and take measurements within a HD-Cyclorama from your workstation; instead of scheduling a field visit.

CycloMedia's Benefits

- Reduce field visits
- Monitor change in the environment
- Build new street sign inventory
- Improve construction estimating
- Facilitate the inspection process
- Update existing tree database
- Streamline permitting
- Increase safety and save time
- Easy software integration

With CycloMedia's Street-View you can easily collect information about anything located outdoors straight from your desk!

CycloMedia is the market leader in large-scale systematic visualisations of the environment by means of HD-Cycloramas, high-quality 360° panoramic images with high accuracy. For more than 30 years we have developed our patented recording and processing systems in-house.

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Smart Imagery Solutions

Please visit us online
www.cyclomedia.com

Contact us via email
info@cyclomediaUSA.com

Or give us a call
1.800.790.3652

GENERAL SCHEDULE

WEDNESDAY, APRIL 15

REGISTRATION 6:00am - 8:00am
Pre-function 2nd Floor

PLATED BREAKFAST 6:30am to 7:45am
Trinity Ballroom
Sponsored by Western Data Systems

JACK DANGERMOND PLENARY 8:00am to 9:00am
Trinity Ballroom

Don't miss the opportunity of the founder of Esri, Jack Dangermond, addressing conference attendees

BREAK & REGISTRATION 9:00am to 9:30am
Pre-function 2nd Floor

CELEBRATING 25 YEARS OF STRENGTH IN DIVERSITY
9:30am to 11:30am
Trinity Ballroom

LUNCH ON YOUR OWN 11:30am to 1:00pm

REGISTRATION 1:00pm - 5:00pm
Pre-function 2nd Floor

MAP GALLERY POSTERS DUE 2:00pm
Registration Desk Pre-function 2nd Floor

GENERAL SCHEDULE

WEDNESDAY, APRIL 15		
Session Track I Esri Technical Sessions 1:00pm - 1:45pm		
LIVE OAK	PIN OAK	RED OAK
ArcGIS Pro The Evolution of Desktop GIS *Pam Kersh*	It's 3D As Easy as ABZ *Mike Beavers*	Apply Geography Everywhere *Gary Scoffield*

Session Track II Vendor Showcases 2:00pm - 2:30pm		
LIVE OAK	PIN OAK	RED OAK
Innovations in Aerial Imagery *Kevin Beers, GISP, Pictometry International Corp.*	Mobilize Your Workforce *Brant Scheidecker & Quint Pertzsch, Cartegraph*	Hosting GIS in the Cloud – Debunking the Myths *Laura Carr & Gary Parker, NTB Associates, Inc.*

COFFEE BREAK 2:30pm - 3:00pm Sponsored by GISNuts

GIS Nuts
Where we're nuts about GIS
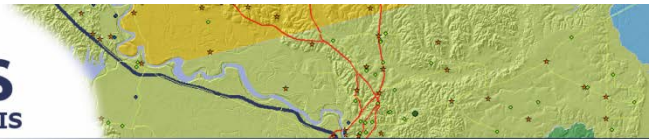
- Data Analysis
- Python Tools
- ArcGIS Online
- Web Application Development/Hosting
- ArcGIS Server Administration/Support
- Geodatabase Administration
- GeoDjango/PostGIS

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GENERAL SCHEDULE

WEDNESDAY, APRIL 15		
Session Track III Esri Technical Sessions 3:00pm - 3:45pm		
LIVE OAK	PIN OAK	RED OAK
Smartphone Nation Taking It Mobile *Mike Beavers*	**Demystify ArcGIS Online** *Karen Lizcano*	**Python 101** *Carl Eichenberger*

Session Track IV		
Session Track IV Esri Technical Sessions 4:00pm - 4:45pm		
LIVE OAK	PIN OAK	RED OAK
ArcGIS Pro The Evolution of Desktop GIS *Pam Kersh*	**ArcMap Tips & Tricks** *Dave Reeves*	**Make Native Mobile Apps with Your Branding** *Brig Bowles*

VENDOR MEET & GREET 5:00pm - 7:00pm Trinity Ballroom Sponsored by Esri

Finish your conference day at the Vendor Meet & Greet!!!
Visit with new & old Vendors, peruse the Map Gallery,
enter vendor door prize drawings, & see the World
Premier of SCAUG's GIS Jazz Combo Band...

The Arcadillos
www.SCAUG.org

Attendees to the Vendor Meet & Greet receive
The Quintessential Pint Glass

GENERAL SCHEDULE

THURSDAY, APRIL 16TH

REGISTRATION 7:30am - 4:00pm
Pre-function 2nd Floor

VENDOR HALL & MAP GALLERY
8:00am - 4:00pm
Trinity Ballroom

Please tear out Map Gallery Ballot in the back of conference guide (page 81), cast your vote for your favorite maps, & submit ballots at registration desk no later than 3:30pm on Thursday, April 16th

ESRI HANDS ON LEARNING LAB
8:00am - 6:00pm
Dogwood

Come get FREE hands-on Esri training!!!
22 different lessons available which are 45-minutes & are self-guided on individual computers.
Esri Solution Engineers available for assistance.
Lesson Listing on page 38
Sign-up in Dogwood ~ First Come, First Served

Session Track I Vendor Showcases 8:00am - 8:30am		
LIVE OAK	PIN OAK	RED OAK
Django Your Webmaps Leslie H. Morgan, Ph.D., GISNuts	Utilizing Weather Data in GIS Matt Gaffner & Amber Cannon, Weather Decision Technologies	Maximize Your Esri Investment for Proven Success Kevin Stewart & Michael Parma, GISi

GENERAL SCHEDULE

THURSDAY, APRIL 16TH		
Session Track II Vendor Showcases 8:45am - 9:15am		
LIVE OAK	PIN OAK	RED OAK
Public Asset Management: Local Government Asset Lifecycle *Fredrick Warzwick, Cityworks® / Azteca Systems, Inc.*	Leveraging Mobile GIS via ArcGIS Online *Ajay Jadhav, CDM Smith, Inc.*	

VENDOR HALL VISIT TIME 9:15am - 9:45am Trinity Ballroom

Session Track III Vendor Showcases 9:45am - 10:15am		
LIVE OAK	PIN OAK	RED OAK
Our ESRI Upgrade and Migration - The Good, The Bad and The Ugly *Aaron Kreag, GISP, BIS Consulting*	Asset Inventory Using High Definition Street-Level Imagery *Dan Bellissemo, CycloMedia Technology*	The Past & Present of GIS in Texas *Richard Wade, TNRIS*

GENERAL SCHEDULE

THURSDAY, APRIL 16TH		
SESSION TRACK IV USER PRESENTATIONS 10:30AM - 11:30AM		
LIVE OAK	PIN OAK	RED OAK
GEOSPATIAL DATA GOVERNANCE — IT'S A STRATEGY NOT A PROJECT! *ELLEN WEST NODWELL, INTEGRASHARE SOLUTIONEERING, INC.*	**WINSTON COUNTY, MS (LOUISVILLE TORNADO)** *SCOTT L TRAPOLINO, GISP, DESOTO COUNTY*	**MOBILE VOTER LINE WAIT — A STORY OF CITIZEN ENGAGEMENT, PARTNERSHIPS AND PANIC!** *TIM NOLAN & GABI VOICU, COLLIN COUNTY & MIKE PARMA, GISI*

VENDOR LUNCHEON 11:30AM - 1:00PM
TRINITY BALLROOM

JOIN EVERYONE IN THE VENDOR HALL FOR LUNCH & NETWORKING!!! VENDOR DOOR PRIZE WINNERS WILL BE DRAWN & YOU MUST BE PRESENT TO WIN. SO DON'T MISS THE OPPORTUNITY TO WIN.

GENERAL SCHEDULE

THURSDAY, APRIL 16TH		
Session Track V **User Presentations 1:00pm - 2:00pm**		
LIVE OAK	PIN OAK	RED OAK
Opening Up the Vault: GIS and Open Data in Stafford, Texas *Jonathan Farmer, City of Stafford* **Automation, Notification and Jubilation: Incorporating Notifications into Geoprocessing Workflows** *Daryl Scott, City of Dallas*	**You Got Your Chocolate in My Peanut Butter** *Garri Grossi, GISP, Interstate Batteries* **A Geospatial Solution for Environmental Justice Reviews** *Rachel Turney-Work, ENERCON*	**Open Data Denton, TX: Using ESRI ArcOnline Tools** *Kevin Babcock & Chad Spratt, City of Denton* **Ten Years of Gulfport GIS: Survival and Evolution since Hurricane Katrina** *Emma Strong, Mike Miller & Brian Deming, City of Gulfport*

Session Track VI		
Session Track VI **Esri Technical Sessions 2:15pm - 3:00pm**		
LIVE OAK	PIN OAK	RED OAK
A Modern Solution for Water Utilities *Dave Wachal*	**Modernizing Land Records** *Karen Lizcano*	**Creating Beautiful Web Apps without Writing Code** *Brig Bowles*

GENERAL SCHEDULE

THURSDAY, APRIL 16TH

VENDOR HALL VISIT TIME 3:00pm - 3:30pm Trinity Ballroom

Session Track VII User Presentations 3:30pm - 4:15pm		
LIVE OAK	PIN OAK	RED OAK
Taking GIS to the Masses – How The City of Monroe Has Elevated Their GIS Program *Kim Golden,* *City of Monroe,* *LA*	Are You Smartly Working Hard, Or Hardly Working Smart? *John Hunt,* *City of Grapevine*	Increasing River Flooding Situational Awareness: A GIS Extent Mapping Approach *Jared Allen,* *NOAA/National Weather Service*

Session Track VIII User Presentations 4:30pm - 5:30pm		
LIVE OAK	PIN OAK	RED OAK
Spatial Analysis of Opioid Mortality and EMS Administration of Naloxone in Oklahoma *J.L. Gilpen, MS, NREMT-I;* *K.E. Stewart, PhD;* *M.Q. Lansdale, MPH; &* *Y. Wan, PhD*	Building the Texas Emergency GIS Response Team *David W. Allen,* *City of Euless* Bell County Communications Center, where is your emergency? *Azucena "Auzzie" Krobatsch,* *Bell County Communications Center*	Centralizing GIS in Harris County *Johnny Brown,* *Harris County ITC* The Future of GIS: some thoughts. *Ronald Briggs,* *PhD GISP,* *Program in Geospatial Information Sciences* *University of Texas at Dallas*

GENERAL SCHEDULE

THURSDAY, APRIL 16TH

APPRECIATION & AWARDS BANQUET
6:00pm - 8:00pm
Trinity Ballroom

A special Appreciation & Awards Banquet to celebrate the Founders & Thumbs Up Awards, Map Gallery Winners, & Scholarship Award Winners as well as our members Strength in Diversity

NTB & ASSOCIATES SOCIAL HOUR
8:30pm - 9:30pm
The Londoner

Unwind after a long day of conferencing at the NTB & Associates Social hour
The Londoner 14390 Midway, Addison
An easy half mile walk up Midway

SESSION TRACK ABSTRACTS

Wednesday, April 15th

Session Track I
Esri Technical Sessions 1:00pm - 1:45pm

ArcGIS Pro - The Evolution of Desktop GIS   Live Oak
Pam Kersh, Esri

ArcGIS Pro, a new application in the ArcGIS family, makes the GIS functionality you most often use easy to access so you can get your work done faster without a learning curve. It is the essential application for creating and working with spatial data on your desktop that provides tools to visualize, analyze, compile, and share data. In this session we will highlight many of the great new features available in ArcGIS Pro, and see the brand new interface and application.

It's 3D — As Easy as ABZ   Pin Oak
Mike Beavers, Esri

Join us for an overview of the new and exciting 3D Apps and Tools that Esri is making available to an ever-expanding community of Users. During this session, we will show how multiscale 3D models allow you to visualize and analyze your GIS data at different scales from global, landscape down to city and interior spaces. We will cover how you can now share your 3D scenes via browsers and with native 3D apps on mobile devices. Come see how you can visualize your data in its true perspective - 3D!

Apply Geography Everywhere   Red Oak
Gary Scoffield, Esri

Location-based data, maps, and apps play prominent roles in everyone's lives today. Due to this trend, it is an amazing time to be a GIS professional because people across your organization want to use mapping and spatial analysis in their work. During this session, we will explore a new approach to deliver and sustain maps and apps that empower everyone in your organization to apply geography.

Innovations in Aerial Imagery   Live Oak
Kevin Beers, GISP, Pictometry International Corp.

Aerial imagery has become an increasingly valuable tool for the GIS and mapping community in recent years. This presentation will provide a brief historical overview of aerial imagery, explore the significant evolution of the technology over the years, as well as highlight some typical as well as more unique use cases for aerial imagery.

Mobilize Your Workforce   Pin Oak
Brant Scheidecker & Quint Pertzsch, Cartegraph

Take your entire Esri asset inventory with you into the field. No matter where the task is located, Cartegraph gives the mobile workforce everything it needs to easily assign and track daily work, and learn the status of ongoing and planned work. Using the power and simplicity of the ArcGIS online platform, you can consume professional base maps in the field to fully capitalize on the locational data of the work your organization needs to complete.

Hosting GIS in the Cloud – Debunking the Myths
Laura Carr & Gary Parker, NTB Associates, Inc.   Red Oak

NTBA has offered hosting services for GIS and work order management software for three years. In this presentation we will review our hosting services model and our client success stories. We will also go over some of the "myths" of cloud hosting — such as security, cost and accessibility of data.

Smartphone Nation - Taking It Mobile   Live Oak
Mike Beavers, Esri

The line between how we use mobile technology at work and at home has dissolved. The vast majority of what people do is location-based, maps are the root of our mobile lives. In this session, we will look at how to extend the reach of your enterprise GIS to a growing audience. Take a tour of the variety of location-based apps that are available to help you improve field operations and enable your users to make more informed business decisions. You'll see some of the Mobile Enterprise Solutions Esri is building that fit right in your pocket.

Demystify ArcGIS Online   Pin Oak
Karen Lizcano, Esri

During this session we will show you what ArcGIS Online is and how it interacts with your existing GIS workflows. Learn how to host content and services in the cloud easily and securely. Explore content access and restrictions with named users. This webinar is rich with live demonstrations, so you'll walk away more confident in configuring app templates, managing organizational tools, and conducting easy online spatial analyses. Reimagine what your GIS can do for you.

Python 101   Red Oak
Carl Eichenberger, Esri

GIS professionals with little to no scripting/programming experience will have an opportunity to see how Python and ArcGIS for Desktop can be used to automate/streamline GIS tasks. This session will include demonstrations providing an introduction to using Python, Arcpy, and Geoprocessing script tools. Additionally, attendees will be provided resources for using Python and ArcGIS helping to get them in the right direction with their scripts.

ArcGIS Pro - The Evolution of Desktop GIS   Live Oak
Pam Kersh, Esri

ArcGIS Pro, a new application in the ArcGIS family, makes the GIS functionality you most often use easy to access so you can get your work done faster without a learning curve. It is the essential application for creating and working with spatial data on your desktop that provides tools to visualize, analyze, compile, and share data. In this session we will highlight many of the great new features available in ArcGIS Pro, and see the brand new interface and application.

ArcMap Tips and Tricks   Pin Oak
Dave Reeves, Esri

Learn how to get more out of ArcMap 10.3. This session will cover performance enhancements that are available to improve map rendering as well as certain geoprocessing settings that can speed up the processing time for your tools. Users will also see how they can more easily manipulate tables and find out about new 10.3 features like protecting their geodatabases with license files. Customizable application settings and output will be shown to allow you to have more control over ArcMap.

Make Native Mobile Apps with Your Branding   Red Oak
Brig Bowles, Esri

AppStudio for ArcGIS lets you build Mapping Apps that run natively across multiple platforms: OS X, Windows, iOS, Android, Windows Phone and Linux. In this session you will see how to build your own branded Apps using the different App Templates available.

It's time for something new.

Request a Demo

The Local Government Solution for ArcGIS.

Cartegraph™

The Operations Management System.

Every Community Can Be a Smart Community

At Esri®, we do more than talk about smart communities. We help create them.

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Smart communities start here.

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esri.com/smartcommunities

esri
Understanding our world.

SESSION TRACK ABSTRACTS
Thursday, April 16th

Session Track I
Vendor Showcases 8:00am - 8:30am

Django Your Webmaps   **Live Oak**
Leslie H. Morgan, Ph.D., GISNuts.com

JavaScript has been hailed as the GIS web language of the future, and Esri's recently launched Web AppBuilder for ArcGIS makes these applications easier to build/deploy. Esri's JavaScript API allows for rich user interfaces executed in the client's browser, but adding the Django web framework enables the development of truly dynamic web applications. Esri's JavaScript applications can be deployed through Django, giving access to the Python language for generating web content and performing tasks. This presentation will demonstrate how Django can be used to implement user-based authentication and authorization for a web application employing the ArcGIS API for JavaScript. It will show how Django can facilitate the implementation of web application tasks such as exporting attribute tables to downloadable files, sending automatically generated emails/texts to users, and executing geoprocessing jobs. It will also show how Django can be used to employ a proxy page for service and image security.

Utilizing Weather Data in GIS   **Pin Oak**
Matt Gaffner & Amber Cannon, Weather Decision Technologies

Based in Norman, OK, WDT is a premium weather content provider that has been in business since 2000. WDT has been standing up a reliable set of Map Services based on our weather content with application in the agriculture, oil and gas, insurance, and other industries. WDT adds value to many basic weather data sets such as radar and surface observations through our unique QA/QC procedures. WDT also runs unique algorithms to produce premium weather layers such as lightning, hail swaths, and

GROWING DEGREE DAYS. WDT'S VAST CATALOG OF WEATHER DATA AND EXPERT METEOROLOGISTS ALLOW WDT TO PROVIDE QUALITY WEATHER DATA OR CUSTOM TAILORED WEATHER SOLUTIONS TO HELP YOUR ORGANIZATION PROTECT YOUR ASSETS (PEOPLE AND PROPERTY) AND MAKE BETTER BUSINESS DECISIONS.

Maximize Your Esri Investment for Proven Success
Kevin Stewart & Michael Parma, GISi   Red Oak

GISi IS THE PREMIER ESRI PLATFORM IMPLEMENTATION PARTNER AND HAS HELPED OVER 400 STATE AND LOCAL GOVERNMENTS ACROSS THE COUNTRY MAXIMIZE THEIR ESRI INVESTMENT. COME LEARN HOW YOU CAN MAXIMIZE YOUR ESRI INVESTMENT TO TAKE FULL ADVANTAGE OF THE ESRI PLATFORM. WE WILL WALK THROUGH OUR OWN STORY MAP WITH STOPS ACROSS THE COUNTRY, AND YES, IN TEXAS (COLLIN COUNTY, CITY OF AUSTIN, AND AQUA WATER SUPPLY CORPORATION) OF WHERE WE'VE PARTNERED WITH OUR CLIENTS HELPING THEM GET STARTED WITH EMBRACING THE PLATFORM, EXTEND THE PLATFORM, OR COMPLIMENT THE PLATFORM WITH OTHER ENTERPRISE GIS SOLUTIONS.

Session Track II
Vendor Showcases 8:45am -9:15am

Public Asset Management: Local Government Asset
Lifecycle   Live Oak
Fredrick Warzwick, Cityworks® | Azteca Systems, Inc.

IT'S NO SECRET - LOCAL GOVERNMENTS FACE SOME HEFTY FINANCIAL CHALLENGES. FROM STAFFING TO STATUTES, THE COST TO ENSURE THE HEALTH, SAFETY AND WELLBEING OF THEIR CITIZENS IS PUSHING CITY AND COUNTY OFFICIALS TO DO MORE WITH LESS. GIS-CENTRIC PUBLIC ASSET MANAGEMENT HAS CHANGED THE WAY ASSETS ARE TRACKED AND MANAGED. USING A GIS-CENTRIC ASSET MANAGEMENT SYSTEM STANDARDIZES DATA AND ALLOWS INTEROPERABILITY, PROVIDING USERS THE CAPABILITY TO REUSE, COORDINATE, AND SHARE INFORMATION IN AN EFFICIENT AND EFFECTIVE MANNER BY UTILIZING THE ESRI GEO-DATABASE AS THE ASSET REPOSITORY. THIS ALSO PROVIDES AN ENVIRONMENT WHERE EVERYONE, FROM CITIZENS TO EMPLOYEES, HAS THE ABILITY TO TOUCH GIS AS PART OF AN ENTERPRISE WORKFLOW. THIS UNIQUE APPROACH PUTS THEIR SPATIAL DATA TO WORK IN AN

application built specifically to track and extend the lifecycle of the public infrastructure, allowing them to better serve their constituency.

Leveraging Mobile GIS via ArcGIS Online   Pin Oak
Ajay Jadhav, CDM Smith, Inc.

New technologies allowing for advanced data access in the field are streamlining collection efforts and promoting a more cost effective solution for analysis and decision making among municipalities and utilities. Key among these are GIS-based mobile, web, and cloud solutions that allow to effectively develop, access and provide key data regardless of location, time and device. During this presentation, we will focus on the advantages gained by implementing mobile GIS solutions via ArcGIS Online for a stop light LED conversion project. Technologies and methods such as Implementing ArcGIS Online, Migrating Existing GIS to the ArcGIS Online Platform, Using ESRI Collector for Field Work and Employing ESRI's Dashboard to monitor progress will be discussed. Our goal is to demonstrate the relative simplicity and effectiveness of these solutions as well as present options of how the technology may be extended to address specific project and business problems.

Session Track III
Vendor Showcases 9:45am - 10:15am

Our ESRI Upgrade and Migration - The Good, The Bad and The Ugly
Aaron Kreag, GISP, BIS Consulting   Live Oak

Not so long ago our organization underwent a massive ESRI v10 to 10.2.2 multi-server upgrade and migration that took over 400 man hours to complete. In this discussion we will share our story, detail our previous configuration, current configuration, why we made the decision, how it was done, mistakes made and lessons learned. This will be informational, mildly entertaining and far from a sales pitch! Come share in our pain.

Asset Inventory Using High Definition Street-Level Imagery
Dan Bellissemo, CycloMedia Technology   Pin Oak

For over 30 years, CycloMedia has pioneered the creation and use of panoramic street-level imagery (Cycloramas) for mapping applications. By using our accurate terrestrial, high resolution Cycloramas users can visualize, analyze, and extract new information from our annually updated databases as well a verify existing data. We will share our customer's experiences in Washington DC. DDOT (as well as other local governments using our data) to highlight best-practice approach.Learn the advantages of using a new and growing class of geo imagery for asset management and GIS database updating.

The Past and Present of GIS in Texas   Red Oak
Richard Wade, TNRIS

As the state clearinghouse and referral center for geographic information, TNRIS has legislated responsibility to collect and distribute geographic data for Texas. TNRIS accomplishes these tasks in several different ways to ensure the State and its citizens are using the most current publicly available geographic information. Technology has shaped the way we do business and the GIS Community in Texas is embracing the changes. TNRIS and DIR have joined forces to create a GIS Governance Council that will study and make recommendations on how to build a statewide enterprise GIS for Texas. Come listen to what the State has accomplished and what plans are being made for the future.Presenter – Richard Wade, TNRIS Director/State Geographic Information Officer: Richard has over 25 years of experience in GIS and computer mapping. He holds a BS degree in Computer Science from Texas State University. He started his career as an intern with TNRIS in 1986. He helped establish one of the first Statewide GIS systems at TNRIS and the Texas Water Development Board. Richard joined Earth Information Systems Corporation as the Director of Telecommunications. He managed and maintained several high profile data contracts for
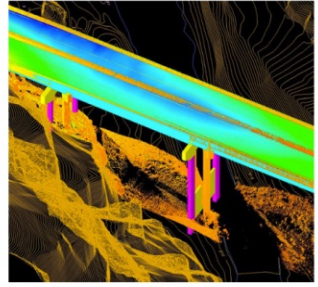
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Qualcomm, Motorola, and Verizon. He went on to co-found the Windrose Data Corporation, which provided GIS data and services to large environmental and energy firms across the country. He returned to TNRIS in 2005 as the Information Services Team Leader responsible for the development and implementation of the TNRIS website and supporting GIS applications. He now serves as the Director of TNRIS and the Geographic Information Officer for Texas. TNRIS was established by the Legislature in 1968 as the Texas Water-Oriented Data Bank. In 1972, after four years of growth and diversification, it was renamed the Texas Natural Resources Information System. The mission of TNRIS is to provide a "centralized information system incorporating all Texas natural resource data, socioeconomic data related to natural resources, and indexes related to that data that are collected by state agencies or other entities." (Texas Water Code, 16.021). The staff includes individuals trained in the natural, computer and library sciences. TNRIS supplies data to government, academia, private sector, and to the public.

Session Track IV
User Presentations 10:30am - 11:30am

Geospatial Data Governance — It's a Strategy not a Project!   Live Oak
Ellen West Nodwell, IntegraShare Solutioneering, Inc.

Organizations struggle to manage data sustainably, if at all. Geospatial data is even more complex to manage, in as much as often it depends on data coming from somewhere else, geocoded attributes, or elsewise. Why is it a challenge to keep our maps "right on" with positioning and attribute accuracy? What happens to the data? How can "good data go bad"? What can organizations do? Implementing a geospatial governance strategy is one way. Geospatial data governance is not a project, it is a journey of sustainability. It is about people, processes and technology working together to keep the quality in geospatial data. This must be considered from the top to

the bottom of an organization that wants its maps to be trusted and used as a dependable source for information for decision making. Analysis of bad data yields bad results.If you don't have good and trustworthy maps, why go to the trouble to use maps at all? Bad maps make trouble!

Winston County, MS (Louisville Tornado)   Pin Oak
Scott L Trapolino, GISP, DeSoto County

An EF-4 Tornado touched down outside of Winston County, MS at 3:51 PM on April 28, 2014. This EF-4 tornado ran for a length of 35 miles, maximum span of 3/4 of a mile in width, wind speeds reaching 185 mph, 647 damaged structures (including the only county hospital), 10 fatalities and unknown injuries. This presentation will include key elements used in Primary Damage Assessment and simplistic analysis examples that can be used by GIS Professionals to assist State and Federal Emergency Management Official's in Damage Assessment and Basic Decision Making. The data collection and analysis for this natural disaster would have not been possible without quality GIS data provided by Golden Triangle Planning and Development District. "The real value of GIS is NOT in the response phase, by then it's too late..."

Mobile Voter Line Wait – A Story of Citizen Engagement, Partnerships and Panic!   Red Oak
Tim Nolan & Gabi Voicu, Collin County & Mike Parma, GISi

Collin County IT collaborated with our Elections Office to provide a solution to address long line waits during popular elections. The Elections Office needed an answer to alleviate long voter line waits without giving the impression that voters were being sent away from a polling site. The IT staff learned that it is a violation of voter laws to send people from a polling location – even if it is to help out the voter. How do you inform voters that they can vote at another location with a shorter line without explicitly telling them? The solution – strategically placed QR Codes that show the closest polling location and the approximate line wait time on the

voter's mobile device. The voter can then chose for themselves to leave their place in a long line to seek out shorter one. We will tell the story of upgrading software and developing a new version of our Voter Line Wait app two (2) weeks prior to a major Election.

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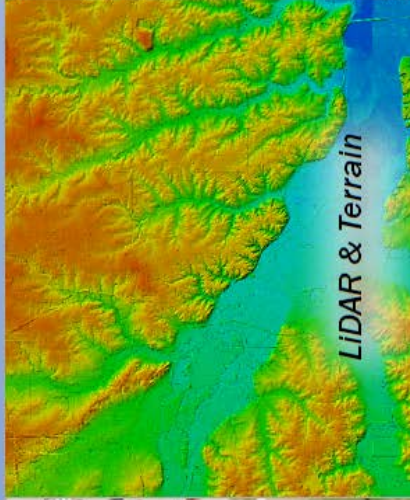
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HANDS ON LEARNING LAB
Thursday, April 16

The Hands-on Learning Lab (HOLL) is a training resource provided and developed by Esri Training Services. The Lab is an excellent way to introduce ArcGIS users to a variety of Esri software solutions and training opportunities while learning to use Esri software.

The HOLL consists of a group of laptops with headphones where students can work through lessons at their own pace. A lesson consists of a recorded presentation followed by a hands-on exercise. Each lesson typically takes about 45 to one hour to complete and students can generally come and go as they please. Ed Services instructors are on hand to assist with questions and to discuss Esri products, other training opportunities and Esri Technical Certification.

LESSONS

1. Getting Started with GIS 1: Understanding the ArcGIS Platfor
2. Getting Started with GIS 2: Using ArcMAP to Explore GIS Data
3. Getting to Know ArcGIS Pro
4. Advantages to Storing Your GIS Data in the Geodatabase
5. Creating Presentation Quality Maps in ArcMap
6. Editing GIS Data in ArcMap
7. Multi-user Editing Using Versioning
8. Editing and Maintaining Parcels Stored in a Parcel Fabric
9. Geocoding Street Addresses to Create Map Points
10. Importing and Preparing CAD Data for Use in ArcGIS
11. The Importance of Spatial Reference in Tactical Applications
12. Exploring Health and Epidemic Patterns Using Spatial Statistics Tools
13. Optimizing Transportation Routing Using ArcGIS Network Analyst
14. Modelling Time and Distance Along Networks Using Linear Referencing
15. Working with Geometric Networks to Manage Utilities and Water Runoff
16. Interpolating Sample Points to Create Rasters Using Spatial Analyst Tools
17. Geoprocessing GIS Data Using Python
18. Sharing Maps and GIS Content Using ArcGIS Online
19. Understanding Web Services Using ArcGIS for Server
20. Generating Web Applications for the GIS Novice
21. Getting Started with the Community Maps Data Preparation Tools
22. Mapping Excel Data Using Esri Maps for Office
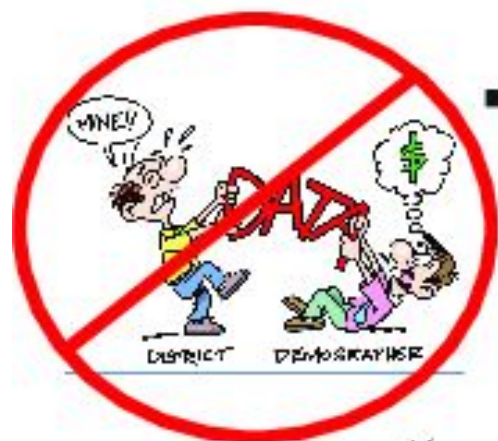
Opening Up the Vault: GIS and Open Data in Stafford, Texas
Jonathan Farmer, City of Stafford   Live Oak

Across the nation, citizens are clamoring for open and transparent government. They want to know what their tax dollars are being spent on, trends in crime rates, and when that one street is finally scheduled to be repaved. Many large and medium sized governmental entities have responded with elaborate data portals, communications tools, and civic hacking events. While these changes are welcome, smaller governmental entities have not been able to keep up, largely due to cost. ESRI's Open Data Portal and Web GIS platform allow those smaller entities to get in the game.The City of Stafford, Texas is a small suburb located southwest of Houston comprised of 7 square miles. The City utilizes ArcGIS Online technology and other cloud based technologies to share data, deliver web maps, and facilitate community involvement. All of this with 1 person and a GIS budget of less than $6,000.

Automation, Notification and Jubilation: Incorporating Notifications into Geoprocessing Workflows
Daryl Scott, City of Dallas   Live Oak

Workflow automation is important to boost productivity, improve service, and promote data integrity. Once an automation script is placed into production, the script is often ignored until staff or customers report symptoms caused by the script's failure. In some cases, automation script failure may go undetected for extended periods of time resulting in stale data, service disruptions, and customer dissatisfaction. These situations can be mitigated by conditionally sending a notification to staff based upon the script's exit code. This presentation will highlight successful incorporation of notifications into geoprocessing workflows using email, Growl for Windows, and Pushbullet.

You Got Your Chocolate in My Peanut Butter
Garri Grossi, GISP, Interstate Batteries   Pin Oak

ESRI's Business Analyst Desktop tool is an essential part of any corporate strategy or business plan, but did you know it has many applications for use in the local, state, and federal environments? This presentation will describe the various data and tools within BA Desktop and how they could benefit your governmental agency's analysis needs.

A Geospatial Solution for Environmental Justice Reviews
Rachel Turney-Work, ENERCON   Pin Oak

In 1994, President Clinton signed Executive Order 12898 directing each Federal Agency to consider environmental justice (EJ) by identifying disproportionate and adverse health or environmental effects of its activities on minority and low-income populations. Subsequently, all projects requiring a NEPA analysis must also include EJ reviews. To comply with this requirement, GIS has been implemented as an effective tool to combine demographic, American Community Survey, and regional data to effectively and quantitatively assess potential impacts to identified minority and low-income populations. This in turn allows for the identification of mitigation measures to reduce or prevent impacts and also reduces the risk for contentions and project impacts. In short, GIS has provided the perfect tool to combine socioeconomic impact analyses with a geographic component in an effective, repeatable and defensible process. All of which are necessary when working on projects that receive a high degree of scrutiny and review.

Open Data Denton, TX: Using ESRI ArcOnline Tools
Kevin Babcock & Chad Spratt, City of Denton   Red Oak

Open data solutions for government entities are gaining popularity across the country. The City of Denton Technology Services department was tasked, by the Committee on Citizen Engagement, with creating an Open Data solution that accomplished multiple objectives: 1) Provide an interactive portal for community data access 2)

Increasingly incorporate automation in processes concerning mapping and data distribution to the public 3) Resources used in achieving these goals should already exist within the city (e.g.; limited budget for creating Open Data Portal). Once achieved, the city's Open Data Portal underwent multiple stages of refinement. In its current iteration, the city's data portal increases operation transparency via public data access across a growing list of departments.Direction for the form/role of the city's Open Data Portal hinges on feedback from the community, use of analytics to monitor site usage, and cost-benefit analysis.

Ten Years of Gulfport GIS: Survival and Evolution since Hurricane Katrina   Red Oak
Emma Strong, Mike Miller & Brian Deming, City of Gulfport

In the ten years since Hurricane Katrina devastated the Gulf Coast of Mississippi and Louisiana, the City of Gulfport and our GIS have gone through many changes and updates. The people in the city and the office have changed, as some left and others came and went. The office was located in a trailer for three years before the building was repaired. Our hardware and software have continued to be upgraded. A few policy and methodology changes have occurred, including the addition of a digital plat submission policy. Several new datasets and feature classes have been added since Katrina, and all others have been updated on a regular basis. Some additions include 2007 and 2012 imagery, and an inventory of city-owned buildings and properties. Our online mapping services have evolved from Java to Flex to ArcGIS Online, which has brought GIS to other city departments.

Session Track VI
Esri Technical Sessions 2:15pm - 3:00pm

A Modern Solution for Water Utilities   Live Oak
David Wachal, Esri

This workshop will begin with an overview of Esri's app strategy followed by an introduction to ArcGIS for Water Utilities. ArcGIS for Water utilities data models and apps will be discussed and the configuration of a few

SIMPLE APPS WILL BE DEMONSTRATED. THIS WORKSHOP WILL END WITH A DISCUSSION OF A MODERN DEPLOYMENT METHODOLOGY FOR WATER UTILITIES AND A FEW INDUSTRY SUCCESS STORIES.

Modernizing Land Records   Pin Oak
Karen Lizcano, Esri

By Leveraging Esri's Land Records solution you can manage an accurate inventory of real property, analyze the value of land along with its' associated improvements, describe who owns the land, and convey land-use and zoning regulations. During this session we will look at modern solutions available for the Land Records industry. We will also discuss options for editing and publishing your parcel information to the web in solution applications and out of the box, configurable templates.

Creating Beautiful Web Apps without Writing Code
Brig Bowles, Esri   Red Oak

Esri's new ArcGIS Web AppBuilder is a pure HTML5/JavaScript-based application that allows you to create your own intuitive, fast, and beautiful web apps without writing a single line of code. The app uses new ArcGIS platform features and modern browser technology to provide both flexible and powerful capabilities. Come to this session to learn how you can configure GIS apps that run seamlessly across all devices.

Session Track VII
User Presentations 3:30pm - 4:15pm

Taking GIS to the Masses — How The City of Monroe Has Elevated Their GIS Program
Kim Golden, City of Monroe, LA   Live Oak

The City of Monroe, Louisiana has been a long time user of GIS, however, from the initial conception of the program, it was more of a back-room mapping application that only few had true access to. Through the years, staff changes and improvements in technology, the City of Monroe has modified its GIS program to allow GIS information, edits and processes to be a part of an employee's work activities

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and continues to spread that thought process throughout the City. Utilizing new technology, such as cloud hosting and replication, the City's GIS program is now able to share information with other governmental entities in Ouachita Parish and in the near future will launch a web site for public viewing of information. This presentation chronicles the journey and how the City of Monroe has elevated it's GIS program to the masses.

Are You Smartly Working Hard, Or Hardly Working Smart?
John Hunt, City of Grapevine   Pin Oak

The GIS environment is constantly changing and evolving, and many of us are unsure on dealing with the new challenges and available technology. The NTGISCC is an organization formed to address these challenges and changes. It is made up of over 30 GIS Professionals from the Dallas/Fort Worth Area, as well as representatives from TNRIS and Esri. Through surveys taken from the GIS Community, the NTGISCC has narrowed down the top "pain points & key issues" for GIS Professionals. NTGISCC sub-committees will be discussing these issues, and will create publications that will be available to all GIS professionals for free. This presentation will discuss how we came up with these issues and pain points affecting all of us, and the path we'll take to find the answers and solutions.

Increasing River Flooding Situational Awareness: A GIS Extent Mapping Approach
Jared Allen, NOAA/National Weather Service   Red Oak

Situational awareness of river flooding and its time evolution through the use of flood extent mapping is critical for emergency management resource allocation, decision making, and overall public alertness. However, current National Weather Service (NWS) mapping efforts for flood extents per gauge site can equate to $10,000-50,000 and six months to two years of resource expenditures before finalization. To offset these high costs, an experimental GIS method for deriving river flood extents has been developed in partnership with the Corps

of Engineers. Through a GIS protocol and the use of the Flood Estimation Simulation Model (FESM), early results indicate near 70-95% accuracy and completion times in a matter of days, if not hours. Strong spatial correlations using the kappa coefficient statistic show quality controlled flood extents to have substantial to near perfect agreement with NWS standards (0.70 − 0.99). This technique has already saved resources in an operational setting, and through the use of dynamic web maps, has increased internal and NWS core partner situational awareness during river flooding episodes.

Session Track VIII
User Presentations 4:30pm - 5:30pm

Spatial Analysis of Opioid Mortality and EMS Administration of Naloxone in Oklahoma
J.L. Gilpen, MS, NREMT-I; K.E. Stewart, PhD; M.Q. Lansdale, MPH; Y. Wan, PhD   Live Oak

Objective:
Identify high-risk areas of opiate overdose using GIS to compare opiate-related overdose mortality data and EMS naloxone administration data.
Background:
On 06/14/2014 House Bill 1782 took effect providing statutory revisions to Administration of opiate antagonists (§ 63-1-2506.1) allowing all first responders to administer naloxone.
Methodology:
Patient-level data from the Oklahoma EMS Information System and vital statistics death data were used in conjunction with GIS techniques and spatial scan statistics to generate risk maps for areas with lower-than-expected naloxone use.
Results:
Between 01/01/2011 and 06/03/2014, 13,064 instances of naloxone administration were reported. Four clusters of statistically significant, higher-than-expected naloxone administration were identified (1.01<RR<9.0, P=.001). Analysis revealed 19 clusters of lower-than-expected naloxone administration. The clusters of lower-than-

EXPECTED USAGE CORRELATED WITH BASIC AND INTERMEDIATE LICENSED EMS AGENCIES.

CONCLUSION:

Analysis of spatial risk distribution may be useful identifying EMS agencies that would benefit from the Naloxone Training and Administration for EMS Personnel Program.

Building the Texas Emergency GIS Response Team

David W. Allen, City of Euless   Pin Oak

Past disasters in our area and across the state have underscored the need for a deployable mapping team that can work remotely or on-site to provide critical mapping and analysis to Emergency Management Coordinators. To meet this need, a volunteer group was formed from GIS professionals who train on emergency mapping techniques for all hazards and respond to disasters – the Texas Emergency GIS Response Team (Tx EGRT). The presentation will show the structure of the group, examples of exercises and responses in which the team has participated, and information on how you can get involved.

Bell County Communications Center, where is your emergency?

Azucena "Auzzie" Krobatsch, Bell County Communications Center   Pin Oak

In Central Texas, a single Public Safety Answering Point (PSAP), uses GIS to locate over 500 9-1-1 calls a day. The first question that is asked is "where is your emergency". The callers answer, coupled with location data passed by the phone, is used to ensure that the caller receives the emergency response they need. The components that place the caller's location, suggest the proper agency response, and determining the closest available unit are all components of GIS for 9-1-1. To do this the 9-1-1 GIS system requires GIS data that is so precise that it translates to less than half an inch on the ground. This is a full scope analysis of how GIS for 9-1-1, is a collaborative effort between callers, city GIS, responders, call takers and dispatchers.

Centralizing GIS in Harris County
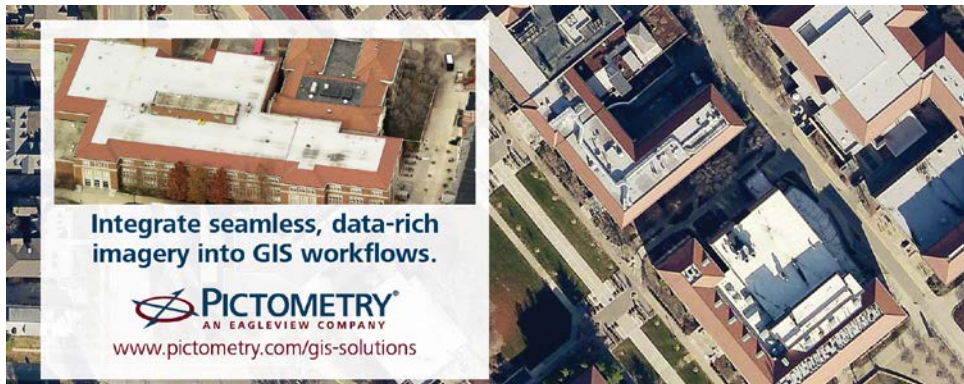Johnny Brown, Harris County ITC   Red Oak

Harris County took steps to update methodologies and practices with new techniques, fresh ideas, and industry recognized best practices resulting in a more reliable GIS. The most significant development is the centralized spatial data repository. The repository employs ESRI ArcServer technology to store and serve centralized, official and common base data to county agencies and the public. Several applications that utilize spatial data: Park and address locators, Hike & Bike Trail apps, Police & Fire Department apps... now employ data from the repository. Requests for spatially-based applications continue to increase.

The Future of GIS: some thoughts.
Ronald Briggs, PhD GISP, Program in Geospatial Information Sciences University of Texas at Dallas
Red Oak

On the occasion of the 25th anniversary of SCAUG, it's perhaps useful to look forward as well as back. However, the past is our only model for the future, so this presentation speculates regarding the future of GIS from the perspective of a person who drew their first map with a computer almost 50 years ago (in 1967) using punched cards for input and a line printer as the plotter. Speculation as to what may be possible fifty years hence is not especially productive, perhaps even foolhardy, but what we might expect, given past trends and current practices, for the next several decades is useful, and indeed fun. So, with respect in particular to data and applications in a metropolitan area context, this presentation asks "Whither GIS?"

MAP POSTER ABSTRACTS

Walkability Analysis of Harris County Parks

Johnny Brown, Harris County ITC

Parks are a highly visible element of county government. The ability of citizens to access the parks is of obvious importance. Walking distance to parks is perhaps the best method to determine park accessibility. This analysis determines areas within one mile of a park. One mile represents the maximum distance a person would consider walking to a park. Of course, any distance can represent the maximum limit of walkability and the analysis adjusted.

Assessing US Land Use Impact by Clean Vehicle Systems

Yi Hou, Patricia Pontau, Hua Cai, Yi Zhen, and Ming Xu
CDM Smith & University of Michigan Ann Arbor

Transition of the current gasoline-based transportation system into a renewable fuel-based clean vehicle system can offer great opportunities to reduce greenhouse gas emissions and improve energy independency. However, different transportation fuels have significantly different demands on land resources.
To enable comparison of land demand among different fuel choices for clean vehicles, this research aims to provide an assessment of land demand based on a vehicle mile traveled basis. We analyzed and compared potential renewable fuels including biofuels produced from different natural feedstock (corn, highland switchgrass, lowland switchgrass and open ponds grown algae), and electricity produced from engineering renewable sources (wind, solar, and closed system algae). Optimal choice maps of best natural stock and renewable energy are created from the comparison results. Sensitivity analysis is also used to analyze how sensitive the natural feedstock is to the annual yield changes and the engineering renewable source is to engineering production changes.

Increasing River Flooding Situational Awareness: A GIS Extent Mapping Approach

Jared Allen, NOAA/National Weather

Situational awareness of river flooding and its time evolution through the use of flood extent mapping is critical for emergency management resource allocation, decision making, and overall public alertness. However, current National Weather Service (NWS) mapping efforts for flood extents per gauge site can equate to $10,000-50,000 and six months to two years of resource expenditures before finalization. To offset these high costs, an experimental GIS method for deriving river flood extents has been developed in partnership with the Corps of Engineers. Through a GIS protocol and the use of the Flood Estimation Simulation Model (FESM), early results indicate near 70-95% accuracy and completion times in a matter of days, if not hours. Strong spatial correlations using the kappa coefficient statistic show quality controlled flood extents to have substantial to near perfect agreement with NWS standards $(0.70 - 0.99)$. This technique has already saved resources in an operational setting, and through the use of dynamic web maps, has increased internal and NWS core partner situational awareness during river flooding episodes.

The J(o)urney to Boston

Pamela Jurney, GISP, Cross Timbers Consulting, LLC

This map poster is the culmination of a journey that started two years ago. For either professional or personal reasons, I have traveled from Oklahoma to various parts of the United States and enjoyed a series of running adventures. In October 2013, I happened to qualify for the Boston Marathon in Portland, Oregon. With a Garmin on my wrist, the maps of my paths have been preserved to the delight of this professional geographer/ hobbyist runner/working wife and mother. The point paths have been converted into shapefiles (online GPX to SHP tool) and then converted to lines (ArcToolbox). The map layout was created in ArcMap and

the background imagery is courtesy of ArcGIS Online resources.

This map poster shows how recreational activities can be integrated into ArcGIS and the map layout capabilities of ArcMap. It also celebrates my last stretch of the Joy in the J(o)urney. #boston2015

Spatial Analysis of Opioid Mortality and EMS Administration of Naloxone in Oklahoma

J.L. Gilpen, MS, NREMT-I; K.E. Stewart, PhD; M.Q. Lansdale, MPH; & Y. Wan, PhD
Oklahoma State Department of Health

OBJECTIVE: Identify high-risk areas of opiate overdose using GIS to compare opiate-related overdose mortality data and EMS naloxone administration data.

BACKGROUND: On 06/14/2014 House Bill 1782 took effect providing statutory revisions to Administration of opiate antagonists (§ 63-1-2506.1) allowing all first responders to administer naloxone.

METHODOLOGY: Patient-level data from the Oklahoma EMS Information System and vital statistics death data were used in conjunction with GIS techniques and spatial scan statistics to generate risk maps for areas with lower-than-expected naloxone use.

RESULTS: Between 01/01/2011 and 06/03/2014, 13,064 instances of naloxone administration were reported. Four clusters of statistically significant, higher-than-expected naloxone administration were identified ($1.01 < RR < 9.0$, $P = .001$). Analysis revealed 19 clusters of lower-than-expected naloxone administration. The clusters of lower-than-expected usage correlated with basic and intermediate licensed EMS agencies.

CONCLUSION: Analysis of spatial risk distribution may be useful identifying EMS agencies that would benefit from the Naloxone Training and Administration for EMS Personnel Program.

When the World Breaks: A Solution for the Broken Data Source Dilemma

Jennifer Still, Integrated Informatics, Inc.

ArcGIS Map Documents and Layer Files store path references to data sources. When these data sources are modified — moved, renamed, or even deleted — the connection to this file is broken. Although ArcGIS itself offers resources for fixing this issue, they can often be tedious and time-consuming. One solution that has been found to properly heal broken data sources in a timely manner is that of simply reclassifying it. Reclassifying path references using a remap file opens the way for not only altering the data source, but also for updating your workspace from one format to another and replacing or removing a layer from a map document.

Mapping Hunger and Hope

Kiran Duggirala, GISP, Tulsa Health Department

Food Insecurity and Food Deserts are widely used to gauge food deficiency. The USDA describes food insecurity as "consistent access to adequate food is limited by lack of money and other resources at times during the year". The USDA defines Food Deserts as "parts of geographic areas vapid of fresh fruit, vegetables, and other healthful whole foods, usually found in impoverished areas." Food Deserts contribute to food insecurity and exist mostly in rural and low-income communities. Research finds that population in Food Deserts suffer from diet-related health outcomes. Community Food Pantries mission is to serve local residents who suffer from hunger and food insecurity. This poster displays Food Insecurity and Food Deserts, overlaid with food pantry locations, in Eastern Oklahoma with a closer look at Tulsa County.

Bell County Veterans: Who, What, When, Where, Why, & How

Azucena "Auzzie" Krobatsch, Bell County Communications Center

Bell County is filled with veterans. Some areas of the county are home to veteran populations as high as 50%. Both Bell County and Texas have made this area an excellent home for veterans. The country, state, cities, and county provide an overwhelming amount of services to veterans. Locating these services and understanding all the rules are even more overwhelming. This map is shows veterans what their benefits are. Who the benefits apply to. When they can access those benefits. Where to get those benefits. All together this map is a how to for veterans in Bell County. This map will also examine the veteran population of Bell County. Taking into account gender, education, employment, and even disability.

GIS Analysis of Big Data for Transportation Planning Projects

Nicole Bradstreet, Lin Peng, GISP, CFM, & Yagnesh Jarmarwala, GISP, PMP, CDM Smith, Inc

This poster is intended to illustrate the application of Geographic Information Systems (GIS) in analyzing data for transportation studies and enhancing the study results and recommendations for future transportation planning and projects.

In our poster we will focus on the results gained from implementing GIS solutions in the following areas:

1. Analysis of existing traffic trend by aggregating and presenting travel time data

2. Analysis of historical traffic growth on highway corridors

3. Analysis of Origin-Destination and travel pattern data from cell phone and Bluetooth devices

4. Analysis of crash data to identify patterns with summary tables, charts, and density buffers

Our goal is to demonstrate how GIS technologies can aid in identifying focal points for future transportation studies and ultimately enhance mobility and safety.

Location-based Predictive Analytics in K-12 Facility Planning
Michael Howard, GISP, Parkhill, Smith and Cooper

School administrators and facility planners are often faced with the difficult task of balancing academic effectiveness with operational efficiency in K-12 public schools. This poster addresses how GIS and predictive analytics have helped school districts identify issues and make better decisions regarding facility planning, maintenance, and operations. Using geographically weighted regression analysis, the relationship between various metrics are explained including their impact on school design.

Collin County Tollway Corridor Valuation 2001 – 2015
Bret Fenster, GISP, County of Collin, Texas

Will a proposed tollway increase nearby land values in years to come? Let's see what the past tells us. This study utilizes historical parcel data and compares the values of different tollway segments. A half mile buffer was created from the centerline of designated tollway segments. Then, the parcels with their center in each buffer were selected. The market valuation of these parcels was summed and the value per tollway mile is shown for the years 2001, 2005, 2010 and 2015. The study makes the case that the expense of building the future Outer Loop Toll Road is supported by the future increase in adjacent land values which would recompense Collin County's construction outlay with potential increased tax revenue.

Plano Paddle Trail Planning Committee – Using ArcGIS Online to Coordinate Data Collection
Bret Fenster, GISP, County of Collin, Texas

Plano, Texas is a city in the Dallas/Fort Worth area and has numerous parks that contain scenic stream segments and park ponds that are convenient to many neighborhoods. There is currently a city ordinance that prohibits watercraft on the park ponds. The Plano Trail

System Planner decided to see if paddling trails are an option in this area and entered into a partnership with the National Park Service's Rivers, Trails & Conservation Assistance (RTCA) program. The initial phase of this project required photographic documentation. An ArcGIS Online Story Map was created to allow all the committee members to upload their reconnaissance photographs and record where each picture was taken. Once these point locations were gathered, data entry fields were added to the Story Map point data to facilitate more comprehensive attribute collection.

VENDOR HALL EXHIBITOR BIOGRAPHIES

Platinum Vendor

Western Data Systems is an authorized Trimble Dealer specializing in the sales, rentals, training and technical support for Survey, Mapping, Marine, Utility, Environmental, Fleet Management and Seismic Industries. WDS was founded in 1982 and since then has concentrated on supplying top of the line Spatial Measurement and GPS related products in Texas and Oklahoma for sales and worldwide for rentals. We offer several peripheral items such as pipeline locators, ground penetrating radars, laser rangefinders, laser scanners, GPS cameras, barcoders, tablets and much more. WDS has two full Survey Supply stores in Texas and delivers wood, stakes, flags and any supply needed daily. With our extensive rental fleet we have more than enough gear to get you through any job and can ship worldwide. Our Technical Support staff is comprised of a staff that has worked in the field and can help out with any support need you have. We offer free support to both our rental and sales customers. WDS also manages the largest private VRS Network in the world. This network is available to both Survey and Mapping communities. We are adding base stations continuously and the amount of users grows each year. For a full line of our products and Services please visit our website at WWW.WDS-US.COM. With six offices across Texas and Oklahoma you are never too far from The Experts!

Gold Vendors

Since 1986, Cityworks® has been providing innovative GIS-centric management software to public agencies that own and care for infrastructure and property. Built exclusively on Esri's ArcGIS technology, Cityworks is a powerful, scalable, and affordable platform for asset management, permitting, licensing and more. Time-tested and proven technology, Cityworks is Empowering GIS® at more than 500 user sites around the world.

eGIS Associates, Inc. is focused on providing efficient and cost effective Geospatial Solutions that meet the growing needs of public and private sector enterprises. Our mission is to help you consume the "Power of Place" with current technology standards and **Applied Spatial Intelligence** ©. eGIS offers a wealth of professional products and services including:

- Enterprise GIS Implementation
- Geodatabase Design
- Web & Mobile Application Development
- Field-to-Office Automation
- Business Systems Integration
- Geospatial Training and Support

eGIS is committed to customer satisfaction – **Relationships Matter**. Whether you need advice on your project or are looking for a relevant product or just have a technical question eGIS Associates stands ready to assist.

Esri® helps organizations map and model our world. Esri's GIS technology enables them to effectively analyze and manage their geographic information and make better decisions. They are supported by an experienced and knowledgeable staff and an extensive network of business partners and international distributors. Every year, Esri reinvests more than 20 percent of its revenues in research and development to ensure users have the best tools possible to accomplish their missions. A comprehensive suite of training options helps them fully leverage their GIS. Esri actively supports organizations involved in education, conservation, sustainable development, and humanitarian affairs by donating hundreds of millions of dollars in software, training, consulting, and project support.

For the past 10 years Geospatial Training Services has provided a wide array of GIS training courses in many different formats. We provide training any time and any place! Through our online training platform we provide Esri, Open Source, Google Earth and Maps, and GPS training in live and self-paced formats. Students have the option of taking classes at their own pace and on their own schedule. We also provide traditional classroom training options. For more information please visit our website at geospatialtraining.com.

Silver Vendors

Aerial Services, Inc. (ASI) is an integrated team of professionals providing premier Aerial Acquisition, Digital Ortho, Vector Mapping, Terrain & LiDAR services to government, utilities, engineers, and other geospatial clients. Based in the Iowa heartland for over 45 years, Aerial Services' strong work ethic, cutting-edge technology, and experienced staff combine to harness the power of geographic information and. provide solutions you need. www.AerialServicesInc.com

The Cartegraph Operations Management System is designed and built to help public sector organizations save time and money. With its emphasis on adoptability, user experience, and return on investment, Cartegraph technology helps organizations effectively manage the work, assets, resources, and requests at the center of their day-to-day operations.

With 30 years' experience, CycloMedia is the market leader in building street-level imagery databases for government and professional users. Our recording system is like no other. It uses patented technology to provide up-to-date and accurate 360-degree panoramic images, called HD-Cycloramas. In addition, we provide GlobeSpotter viewing software, and GlobeSpotter for ArcGIS to accurately locate and measure features in the imagery, allowing users to view and manage assets and perform site visualization and property appraisal at street level.

Our key benefits include:

|	
Accurate Measurements	Increased Safety
Reduced Field Visits	Faster Inventory Updates
Visual Validations	Easy Software Integration

DDP is the only demographic and planning firm with over 20 years of school district experience. One hundred percent of our firm's work is dedicated to K-12 school districts. We lead our industry in client advocacy and superior consultancy. It is our strong positive leadership and philosophies combined with the valedictorian of demographic and planning software that assures our clients achieve the most precise demographic strategy. The community looks to school district leaders to make wise decisions regarding the management of enrollment. They expect administrators to be able to forecast needs five, ten or more years down the road. Investments in strategic consistent planning tools are critical for the development of successful school districts. With DDP (Davis Demographics & Planning) on the District's side, there will be confidence in those decisions. The founder and senior project manager of the firm have been providing demographic services for 30 years, even prior to the incorporation of Davis Demographics & Planning. DDP has managed demographic projects in many states from coast-to-coast, for many of the fastest-growing districts in the nation, and for some of the largest school districts in the nation. We currently serve our clients from both our Corporate Office in Riverside, California and from our Texas Office in Irving, Texas.

List of basic services provided by the firm:

- Demographic master planning
- Enrollment forecasting methodology
- Demographic analysis
- Attendance boundary redistricting
- Comprehensive computer mapping (GIS, or geographic information systems)
- Facilitate and participate in various community forums and committees
- Assistance with opening schools and closing schools
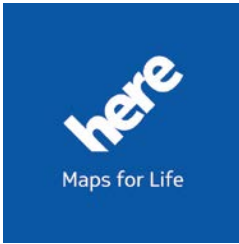
HERE, a Nokia company, is a global leader in the mapping and location intelligence business. Rooted in almost three decades of experience in cartography, our vision is simple: offer the world's best maps and location experiences across multiple screens and operating systems. We want to help people navigate their lives with ease and confidence every day and everywhere. Our maps can be found in four out of five in-car navigation systems in North America and Europe. We also power mobile devices, connected devices and enterprise solutions. We offer maps of 196 countries, voice guided navigation for 118 countries in more than 50 languages and live traffic information for 44 countries. For more information on our products, please visit here.com or contact us at here.com/contactus.

Integrated Informatics Inc. is a leading consultancy for Geographic Information System implementation and development. Founded in 2002, Integrated Informatics provides spatial data management, workflow and process automation, and custom mapping solutions to the Energy and Natural Resource sectors throughout North America with offices in Houston, Texas, Calgary, Alberta, and St. John's, Newfoundland.

0Integrated Informatics has longstanding relationships with its clients who comprise the major and super-major independent and integrated Oil and Gas companies. We have proven to the marketplace that Integrated Informatics has the ability to develop and implement strategies, systems, and technologies that support business goals and deliver corporate value.

Integrated Informatics is a privately held company with exceptionally experienced staff. Our corporate growth, project delivery, and client satisfaction continues to outshine the marketplace and our competitors.

Standard Vendors

Access Geographic serves local industry and local government agencies across Oklahoma, Texas, Louisiana and Mississippi by using innovative geospatial technologies without losing sight that care and detailed craftsmanship still drives quality results. The AGL team is passionate about working with geography, and is continually inspired to make it an accessible and useful resource through discipline, creativity and respect for our clients. From aerial mapping to terrestrial LiDAR, Access Geographic works hard to find a solid solution for your geospatial goals and delivers products that you can trust.

For over 20 years Alexander Open Systems (AOS) has been a leading technology provider in the Midwest. AOS has nineteen offices in ten Midwestern states. We provide total technology solutions for every partner-customer to meet their dynamic needs including; telecommunications, data center, GIS, physical security, data security, cloud services and wireless. Knowing each customer has specific needs; AOS creates a custom solution to meet the business needs of each partner-customer. A full-service provider, AOS designs, installs and supports each technology solution.

At AOS we're in the business of assisting ESRI customers with maximizing their investments in the areas of educational administration, school safety and government. AOS offers specialized experience in staff augmentation, needs assessment, strategic planning, custom desktop training and development, and web mapping development, including ArcGIS Online.

We take a holistic approach to helping our customers achieve their goals. Professional services are the most integral aspect of the work we do and we strive to

maintain a people-direct business philosophy, focusing on our clients and our communities.

Industries Served: Agriculture, Community Development, Education, GIS, Health & Human Services, Highways & Roads, Homeland Security, Information Technology, Land Records, Public Safety.

A seven year old privately owned company based in the Dallas Fort Worth area, BIS is a full service IT & GIS products and services provider priding itself on quality, exemplary customer service and affordability. We always listen to our clients and understand that a successful GIS program has many unique challenges which vary from business to business. We cater to the individual needs of our customers and place a premium on our business relationships. An ESRI Business Partner with an established, outstanding reputation in Texas BIS has a team of 20 staff ready to assist you with any project need, of any size. We will never charge for a conversation!

CDM Smith provides lasting and integrated solutions in water, environment, transportation, energy and facilities to public and private clients worldwide. As a full-service consulting, engineering, construction and operations firm, we deliver exceptional client service, quality results and enduring value across the entire project life-cycle. We provide professional consulting services that address every phase of the GIS lifecycle from system planning to data development to integrated custom applications. As an Esri Gold Level Partner we focus on implementing innovative Esri-based cloud, web, mobile, and desktop solutions that unlock the spatial component of business systems and maximize the use of geospatial technology across an organization. For more information, please contact Nicole

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Bradstreet at bradstreetn@cdmsmith.com or Ajay Jadhav at jadhava@cdmsmith.com.

Geomatic Resources is the premier Leica Geosystems dealer for Oklahoma, Arkansas and North Texas. Our firm was founded in 2005 with an eye towards bringing value to the product by staffing with measurement and technical professionals. Colin Fletcher has over thirty years of measurement, construction and mapping experience.

We are proud to have a staff that includes two Professional Land Surveyors and a combined 100+ years of industry experience in Surveying, Construction, GIS, Machine Control, HDS, and software solutions. We don't just provide the best products, we provide superior solutions. We are professionals backing professional products and we are proud to be a part of SCAUG!

GeoPropel, headquartered in Texas, is a leading solutions provider and staffing partner with core expertise in enterprise GIS & application development. With proven experience in helping companies implement and manage their GIS software and infrastructure, we can help you expand your GIS footprint in a sustainable and cost-effective manner. Our services include Enterprise GIS implementation, ArcGIS custom development, ArcGIS upgrades and custom application development using Bing and Google maps. Our flagship product, iGeoAsset™, is a real-time GIS monitoring tool to monitor ArcGIS & OGC services, GIS applications and geodatabases and other GIS components within your GIS system 24/7 and alert you of any system or service outages via email and text the moment they stop working. For more information, please visit us at HTTP://WWW.GEOPROPEL.COM.

The GIS Certification Institute (GISCI) is a tax-exempt not-for-profit organization that provides the geographic information systems (GIS) community with an internationally-recognized, complete certification program. GISCI offers participants from the first early years on the job until retirement, a positive method of developing value for professionals and employers in the GIS profession. There are currently over 5500 active GISPs located throughout the world.

The current GISP Certification process consists of an application that describes an applicant's background in Ethics, Education, Experience, and Contributions to the Profession. That application, accompanying documentation, and payment are submitted, and the review generally takes from 30 to 45 days for approval.

An exam is now being developed, to be added to the current process by the first half pf 2015. Selected GISPs are performing groundbreaking work in the process of creating the exam based on the Geospatial Technical Competency Model (GTCM) approved by the Department of Labor in 2010.

GISi is an award-winning GIS professional services firm located in Birmingham, Ala., with offices throughout the United States. GISi has a passion for delivering customer driven location technology solutions to federal, state and local governments, and commercial organizations.

GIS Nuts specializes in providing GIS analysis and automation services to clients. Automation services may include the development of GIS work flows, custom GIS tools and/or GIS web applications. GIS Nuts is owned by Dr. Leslie H. Morgan who has over 15 years of experience as a GIS professional. In addition to providing professional services to clients, GIS Nuts sponsors a vibrant community GIS website featuring GIS forums, humor, news feeds, events, and apparel for the GIS enthusiast. GIS Nuts has a real passion for GIS and looks forward to assisting you in locating and automating all the things.

Halff Associates' Geographic Information Systems (GIS) Analysts include Certified GIS Professionals (GISPs) who use the latest GIS technology to provide solutions to engineering problems through spatial analysis. We are standardized on Esri's suite of GIS software, a member of the Esri Partner Network, and an Authorized Esri Application Service Provider (ASP). Our GIS services provide solutions for city, county, state, federal, river authority, and private industry projects in water resources, environmental, transportation, surveying, and other services offered by Halff Associates.

- GIS Data Development
- Web Map Development & Hosting
- GIS Mapping Services
- iPhone/iPad GIS App
- Mobile GIS/GPS
- On-Call GIS Support
- Asset Inventory/Inspection
- Project Tracking Tools
- Custom Desktop/Web GIS Tools
- LiDAR Management & Contour Processing

Keystone Aerial Surveys, Inc. (KAS) specializes in precision aerial survey data acquisition. We have the equipment, skills, experience, and multiple U.S. locations that position KAS to provide the assurance your project is flown to your specifications and on time. This is our focus and mission. Keystone maintains a fleet of 20 aircraft specially modified and certified for aerial surveys. We fly projects using our metric sensors — or yours. We are expert at project planning, installing sensors, aerial acquisition, post processing and delivering your project with strict professional standards and rigorous quality control. Keystone has flown millions of survey miles obtaining film photography, digital imagery, LiDAR, and other aerial imaging / remotely sensed data for thousands of projects.
Contact: Rob Decker 602.486.7456
RDECKER@KASURVEYS.COM — KAS Tyler Texas

Since 1999, Latitude Geographics has enabled people to make better decisions about the world around them by helping them succeed with web-based geography. Hundreds of organizations worldwide rely on Latitude Geographics' Geocortex software to transform how they design, develop and maintain world-class ArcGIS Server and ArcGIS Online web mapping applications. We can help you do even more, faster, at less cost and risk, and with better results. ArcGIS by Esri is the world's leading GIS platform, and since 2010 Latitude Geographics has been an Esri Platinum partner, a distinction shared by less than 1% of partners worldwide.

Engineers ∎ Surveyors ∎ GIS

NTB Associates, Inc.

www.ntbainc.com

Established in 1986, NTB Associates, Inc. (NTBA) has experienced significant expansion in staff and capabilities. The professional staff includes GIS application specialist, programmers, database administrators, civil and structural engineers, and land surveyors. We provide expertise in the following areas:

- GIS/GPS
- Boundary Surveys
- Topographic Surveys
- Hydrographic Surveys
- Route and Utility Surveys
- Water/Wastewater Systems
- Bridges and Structural Design
- Hazardous Material Surveys
- Major Highways and Interstate Design
- Local Roadway/Drainage Improvement

In the GIS services area, NTBA provides clients with turnkey solutions for a wide variety of issues. Our services include:

- Project design and management
- GIS needs assessments
- Database design, development, and management
- ArcServer implementation
- Data conversion and creation
- Asset Management/Work Order Management
- System integration with GIS
- GPS field collection and inventories
- User training and support
- Custom application development
- Enterprise GIS solutions
- And much more...

Patriot Properties, Inc., is the developer of AssessPro, a highly versatile and comprehensive Computer Assisted Mass Appraisal application with the most powerful and affordable assessment tools available.

Full real and personal property valuation models, administration, document and image storage, and the best integrated sketch application and GIS Viewer available are all included.

As the innovator and leader in all types of aerial imagery, Pictometry invented the capture of high-resolution oblique images that, unlike traditional orthogonal (top-down) images, show each side of every structure, roadway and other outdoor objects, with views from all four cardinal directions. Since each pixel is individually geo-referenced, users can quickly and precisely measure geographic position, height, distance and altitude directly on the images in real-time. This innovation changed the GIS world in 2002. Today, the professional-quality, high-resolution aerial imagery is stored in the cloud, eliminating the need for local, manual management of imagery. Simply upload location-based data sets and the information is layered on the images alongside proprietary measurement and analytic tools to deliver unparalleled visual insights. The image library currently contains more than 300 million images captured by a fleet of 79 aircraft utilizing the only oblique camera system to receive USGS certification. Pictometry, an EagleView Company, continues to innovate with leading research and product delivery in all types of aerial imagery capture, data analytics and GIS solutions that serve the commercial, government and public utility sectors. Pictometry engineers continue to lead the market with innovation, research and development providing unmatched delivery of products into multiple markets supported by excellence in imagery and web-based solutions.
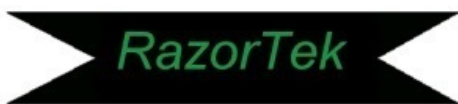
RazorTek Inc. is a privately held GIS and Remote Sensing consulting firm specializing in design, development and automation of complex systems for spatial data display and analysis. Established in 2002, RazorTek serves both the private and public sectors in providing services and technology assistance. We also offer onsite GIS training, data conversion services, data development, Georeferencing, image processing and feature extraction. RazorTek is an authorized reseller for ESRI, LizardTech (GeoExpress), Terrago and RapidEye (satellite imagery) including a provider for satellite imagery from Digital Globe and a provider for aerial photography from 1inch to 2 feet plus LiDAR collects if needed. RazorTek is certified by the SBA as an 8(a) company and certified as a DBE (Disadvantage Business Enterprise) by the Tennessee Department of Transportation in addition we are certified as a MBE(Minority Business Enterprise) by the State of Tennessee and the NCTRA (North Central Texas Regional Certification Agency) in Texas. If more information is required for RazorTek capabilities please contact us by email (danr@razor-tek.com) or call us at 901-922--5448.

TNRIS was established by the Legislature in 1968 as the Texas Water-Oriented Data Bank. In 1972, after four years of growth and diversification, it was renamed the Texas Natural Resources Information System. The mission of TNRIS is to provide a "centralized information system incorporating all Texas natural resource data, socioeconomic data related to natural resources, and indexes related to that data that are collected by state agencies or other entities." (Texas Water Code, 16.021). The staff includes individuals trained in the natural, computer

AND LIBRARY SCIENCES. TNRIS SUPPLIES DATA TO GOVERNMENT, ACADEMIA, PRIVATE SECTOR, AND TO THE PUBLIC.

United Geo Technologies, LLC, your geospatial service provider, offers a wide range of services such as photogrammetry, orthophotography, parcel mapping, and geographic information systems. This small, woman owned business has extensive experience in the geospatial disciplines and our personnel include a Certified Photogrammetrist. UGT's personnel have extensive experience in the following areas:

- Aerial Imagery Acquisition (both analog and digital)
- Airborne GPS
- Aerial Film Scanning
- CAD (MicroStation and AutoCAD)
- Contour Generation
- Digital Aerial Triangulation
- Digital Elevation Models (DEM)
- Digital Terrain Models (DTM)
- Digital Orthophotography (TIFF)
- Image Compression (MrSID, JPEG2000, ECW)
- LiDAR DTM and Contour Integration
- Parcel Mapping
- Geographic Information Services (ESRI)
- Plan and Profile
- Planimetric Feature Extraction
- UAV / Drone Image Processing
- Volume Computations

URISA — [WWW.URISA.ORG](http://www.urisa.org): The Urban and Regional Information Systems Association (URISA) is an independent, not-for-profit 501c(3) organization established in 1966. From webinars and workshops to multi-day conferences, URISA presents an abundance of educational programs, offers volunteer GIS expertise through its GISCorps program, and assists government agencies with benchmarking GIS maturity through its GIS Management Institute. URISA fosters excellence in GIS through its programs, guiding and supporting GIS professionals throughout their careers.

Weather Decision Technologies, Inc. is the industry leader, providing organizations with weather decision support on a global scale. WDT offers specific expertise with big data as it applies to hazardous weather detection and prediction, forecast modeling, decision analytics, GIS, mobile apps and interactive mapping. WDT employs the world-renowned WeatherOps forecast team, staffed by experts who provide global asset projection and commodities trading decision support. WDT maintains operational offices in Norman, Oklahoma and Houston, Texas.

GIS Professionals Volunteering for a Better World Since 2003

Operating since 2003 as a program of the Urban and Regional Information Systems Association (URISA), GISCorps coordinates short-term, volunteer-based GIS services to underprivileged communities worldwide. GISCorps supports humanitarian relief, emergency response, health and education, local capacity building, and community development.

To find out how you can get involved— as a volunteer, donor or partner agency— visit www.giscorps.org or email info@giscorps.org.

NOTES

GISP CHECKLIST
For 25th Anniversary SCAUG Conference

Description	Classification	Credit	Re-Cert Credit	Credits Earned
2½ Day Conference (20 hour)				
Attendee (0.1 x # of days attended)	EDU	0.25	3.33	
Presenter (1 point per instance)	CON	1	3	
Poster Presenter (1 point per instance)	CON	1	3	
Poster Award Winner	CON	2	6	
1/2 Day Training (4 hour)				
From Zero to Hero With Your ArcGIS Online Subscription	EDU	0.1	0.67	
Planning & Managing a GIS	EDU	0.1	0.67	
ArcGIS Tips & Tricks	EDU	0.1	0.67	
Spatial Statistics in ArcMap	EDU	0.1	0.67	
1 Day Training Instructor : _____	EDU	3	9	
1 Day Training (8 hour)				
ModelBuilder Basics	EDU	0.2	1.33	
Building Web ArcGIS Server Applications with JavaScript	EDU	0.2	1.33	
1 Day Training Instructor : _____	EDU	3	9	
2 Day Training (16 hour)				
Introduction to ArcGIS Pro for GIS Professionals	EDU	0.4	2.67	
Introduction to Geoprocessing Scripts Using Python	EDU	0.4	2.67	
2 Day Training Instructor : _____	EDU	3	9	
Total GISP Credits Earned				

Training Certificate required for documentation credit

MAP BALLOT
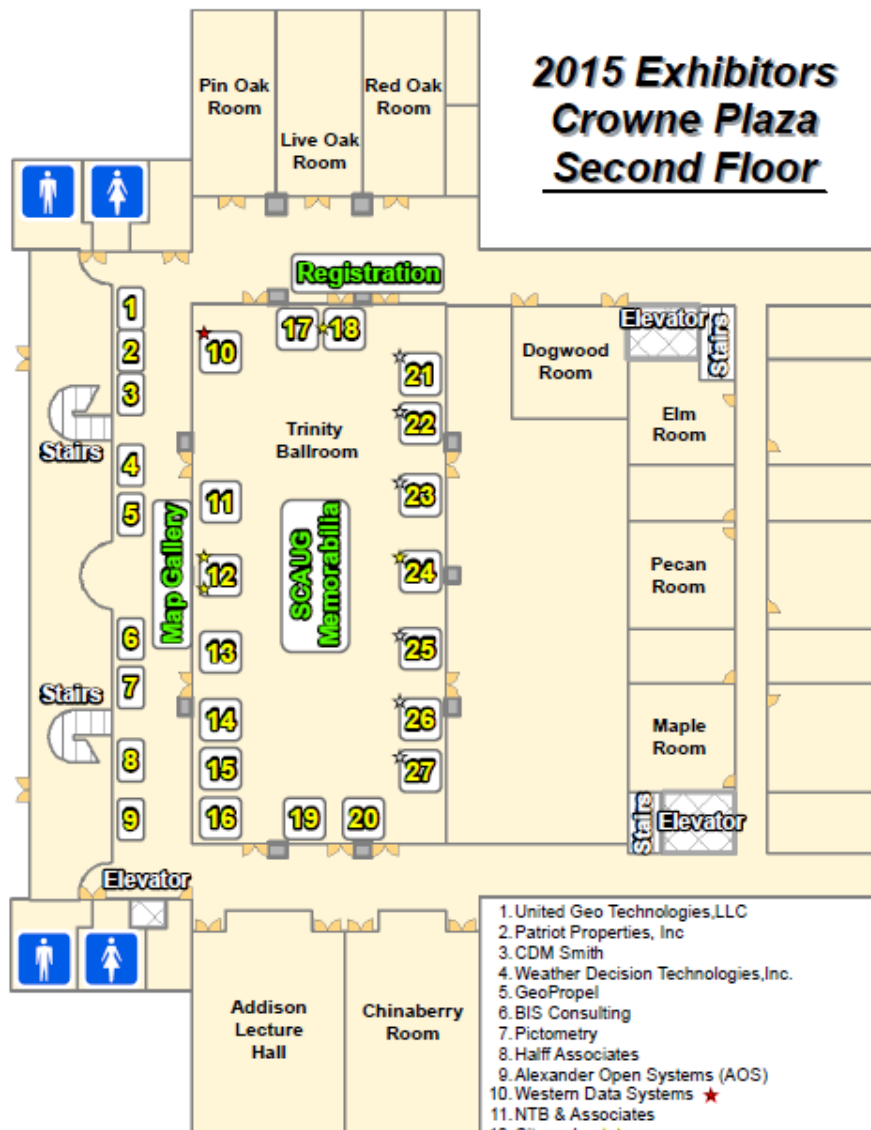
MAP BALLOT

Please Vote for your Favorite Maps

MAP#_____
1st Place

MAP#_____
2nd Place

MAP#_____
3rd Place

Tear Out and Turn In No Later Than 3:30pm
Thursday, April 16th at Registration

2015 Exhibitors Crowne Plaza Second Floor

Pin Oak Room

Live Oak Room

Red Oak Room

Registration

Dogwood Room

Elevator

Stairs

Elm Room

Trinity Ballroom

SCAUG Memorabilia

Map Gallery

Pecan Room

Stairs

Maple Room

Stairs

Elevator

Elevator

Addison Lecture Hall

Chinaberry Room

Booths: 1 2 3 4 5 6 7 8 9 10 11 12 13 14 15 16 17 18 19 20 21 22 23 24 25 26 27

1. United Geo Technologies, LLC
2. Patriot Properties, Inc
3. CDM Smith
4. Weather Decision Technologies, Inc.
5. GeoPropel
6. BIS Consulting
7. Pictometry
8. Halff Associates
9. Alexander Open Systems (AOS)
10. Western Data Systems ★
11. NTB & Associates
12. Cityworks ☆☆
13. Keystone Aerial Surveys, Inc.
14. Geomatic Resources
15. Latitude Geographics
16. RazorTek Inc.
17. eGIS Associates, Inc ☆
18. GeoSpatial Training Services ☆
19. TNRIS
20. GISi
21. Integrated Informatics Inc. ☆
22. Davis Demographics & Planning, Inc. ☆
23. Aerial Services, Inc. ☆
24. ESRI ☆
25. CycloMedia ☆
26. HERE ☆
27. Cartegraph ☆

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Access Geographic, LLC
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★ Platinum Sponsor

☆ Gold Sponsor

☆ Silver Sponsor

Please take a moment to thank the vendors for their interest & contributions to SCAUG over the years.